

Work Order ID 102839

June-12-13 9:15:09 AM

102839

Page 1

Item ID: D4092-042

Accept

N900040100

Setup

Start

NS1

Revision ID:

Item Name: Maintenance Step Assembly

Stop

NS2

Start Date: 6/11/13 Start Qty: 2.00

2

Cust Item ID:

Required Date: 6/11/13 Req'd Qty: 2.00

2

Customer:

Reference:

Approvals: Process Plan: MF

Date: 13-6-12

Tooling:

Date:

Run

Start

NR1

QC:

Date:

SPC (Y/N):

Date:

Stop

NR2

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
--------------------------------	--------------------------	----------------------	---------	--------	--------------	---------------	---------------	------------------	----------------

Draw Nbr	Revision Nbr
----------	--------------

D4092	B
-------	---

100 Pick Kit 0.00

100

Packaging

Packaging

110 0.00

110

Small Fab

Small Fab

Memo 0.00

Assemble as per Dwg
Torque screws up to 15-25 in-lbs

SP
1/07/24

120 QC5- Inspect part completeness to step on W/O 0.00

120

QC

Quality Control

Memo 0.00

13724

DQA: _____ Date: _____

QA Closed: _____ Date: _____

WORK ORDER NON-CONFORMANCE / UPDATE

Work Order update only

Work Order: _____ Part No. _____ NCR No. _____				DISPOSITION		AGAINST DEPARTMENT/PROCESS					
				Rework <input type="checkbox"/> Scrap <input type="checkbox"/> Use-as-is <input type="checkbox"/> Suspected Unapproved <input type="checkbox"/>	Skid-tube <input type="checkbox"/> Machining <input type="checkbox"/> Thermoforming <input type="checkbox"/> Large Fab <input type="checkbox"/>	Crosstube <input type="checkbox"/> Small Fab <input type="checkbox"/> Finishing <input type="checkbox"/> Composite <input type="checkbox"/>	Water Jet <input type="checkbox"/> Prod. Eng. Coor. <input type="checkbox"/> Rec/Store/Packaging <input type="checkbox"/> Supplier <input type="checkbox"/>	Engineering <input type="checkbox"/> Quality <input type="checkbox"/> Other <input type="checkbox"/>			
Root Cause	Date	Step	Qty	Description of work order update or non-conformance	Initial Chief Eng	Action Description	Sign & Date	Verification	QC Inspector		
Design											
Doc/Data											
Equip/Tooling											
Handling/Pre											
Material											
Operator											
Offset/Setup											
Process											
Supplier											
Training											
Transport											
Unapproved											
FAULT CATEGORY											
Landing Gear	General										
	Bending	Bend	Folio/Program								
	Centre Not Concentric	BOM/Route	Grain								
	Cracks	Broken/Damage/Defect	Hardware								
	Crimp/Kink/Ripple/Wave	Burrs	Inspection Incomplete/Unqualified								
	Cuffs	Contamination	Instructions Incomplete/Unclear								
	Crushing	Countersink	Misaligned/off center								
	Heat Treat	Cut Too Short	Mislabeled								
	Inspection Strip in Tube	Drawing	Misread								
	Marks/Chatter	Drill Holes	Off-set								
	Turning Sequence	Finish	Out of Calibration								
	Wave/Twist in Tube	Fit/Function	Out of Sequence								

Work Order ID 102839***102839***

Page 2

June-12-13 9:15:09 AM

Item ID: D4092-042

Accept

N900040100

Setup

Start

NS1

Revision ID:

Stop

NS2

Item Name: Maintenance Step Assembly

Start Date: 6/11/13 Start Qty: 2.00

2

Cust Item ID:

Required Date: 6/11/13 Req'd Qty: 2.00

2

Customer:

Reference:

Approvals:

Process Plan:

Date:

Tooling:

Date:

Run

Start

NR1

QC:

Date:

SPC (Y/N):

Date:

Stop

NR2Sequence ID/
Work Center IDOperation
DescriptionSet Up/
Run Hours

Tool ID

Tool #

Plan
CodeAccept
QtyReject
QtyReject
NumberInsp.
Stamp

130

130

Packaging

Packaging

Identify as per dwg & Stock Location: ST276A

0.00

2X80
B-7-27

140

QC21- Final Inspection - Work Order Release

0.00

140

QC

Quality Control

Memo

0.00

MUS 13-07-28ME13-7-29

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only

Work Order: _____	DISPOSITION			AGAINST DEPARTMENT/PROCESS					
Part No. _____	Rework <input type="checkbox"/>	Skid-tube <input type="checkbox"/>	Crosstube <input type="checkbox"/>	Water Jet <input type="checkbox"/>	Engineering <input type="checkbox"/>				
NCR No. _____	Scrap <input type="checkbox"/>	Machining <input type="checkbox"/>	Small Fab <input type="checkbox"/>	Prod. Eng. Coor. <input type="checkbox"/>	Quality <input type="checkbox"/>				
	Use-as-is <input type="checkbox"/>	Thermoforming <input type="checkbox"/>	Finishing <input type="checkbox"/>	Rec/Store/Packaging <input type="checkbox"/>	Other <input type="checkbox"/>				
	Suspected Unapproved <input type="checkbox"/>	Large Fab <input type="checkbox"/>	Composite <input type="checkbox"/>	Supplier <input type="checkbox"/>					

Root Cause	Date	Step	Qty	Description of work order update or non-conformance	Initial Chief Eng	Action Description	Sign & Date	Verification	QC Inspector
Design									
Doc/Data									
Equip/Tooling									
Handling/Pre									
Material									
Operator									
Offset/Setup									
Process									
Supplier									
Training									
Transport									
Unapproved									

FAULT CATEGORY

Landing Gear	General			
Bending	Bend <input type="checkbox"/>	Folio/Program <input type="checkbox"/>	Outside Dimensions <input type="checkbox"/>	Pressure/Forced <input type="checkbox"/>
Centre Not Concentric	BOM/Route <input type="checkbox"/>	Grain <input type="checkbox"/>	Over/Under tolerance <input type="checkbox"/>	Set-up <input type="checkbox"/>
Cracks	Broken/Damage/Defect <input type="checkbox"/>	Hardware <input type="checkbox"/>	Part Incorrect <input type="checkbox"/>	Temperature/Cure <input type="checkbox"/>
Crimp/Kink/Ripple/Wave	Burrs <input type="checkbox"/>	Inspection Incomplete/Unqualified <input type="checkbox"/>	Part Lost/Missing <input type="checkbox"/>	Weld <input type="checkbox"/>
Cuffs	Contamination <input type="checkbox"/>	Instructions Incomplete/Unclear <input type="checkbox"/>	Part Moved <input type="checkbox"/>	Wrong Stock Pulled <input type="checkbox"/>
Crushing	Countersink <input type="checkbox"/>	Misaligned/off center <input type="checkbox"/>	Positioned Wrong <input type="checkbox"/>	
Heat Treat	Cut Too Short <input type="checkbox"/>	Mislabeled <input type="checkbox"/>	Power Loss/Surge <input type="checkbox"/>	Other <input type="checkbox"/>
Inspection Strip in Tube	Drawing <input type="checkbox"/>	Misread <input type="checkbox"/>		
Marks/Chatter	Drill Holes <input type="checkbox"/>	Off-set <input type="checkbox"/>		
Turning Sequence	Finish <input type="checkbox"/>	Out of Calibration <input type="checkbox"/>		
Wave/Twist in Tube	Fit/Function <input type="checkbox"/>	Out of Sequence <input type="checkbox"/>		

Picklist Print

June-12-13 9:15:09 AM

Page 1

Work Order ID:	102839	Start Date:	6/11/13	Required Date:	6/11/13	
Parent Item:	D4092-042	Start Qty:	2.00	Required Qty:	2.00	
Parent Item Name:	Maintenance Step Assembly					
Comments:	IPP REV:A NEW ISSUE 10-10-08 JLM VERIFIED:DD 639 JLM VERIFIED BY:DD			IPP REV:B AS PER ECN 11-		

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Qty per Kit	Total Qty	Qty Issued	Date Issued	Status
D4092-1 Maintenance Step		Manufactured	No				Each	2.0000		4		13-07-23	
				<u>Location</u>			<u>Loc Qty</u>		<u>Loc Code</u>				
				GA			1						
				77852			1						
				ST241A			1						
				74303			1						
D4093-1 Bracket		Manufactured	No				Each	1.0000		2		13-07-23	
				<u>Location</u>			<u>Loc Qty</u>		<u>Loc Code</u>				
				ST201			1						
				93754			1						
D4093-3 Bracket		Manufactured	No				Each	4.0000		2		13-07-23	
				<u>Location</u>			<u>Loc Qty</u>		<u>Loc Code</u>				
				ST201			4						
				93253			4						
D4093-5 Bracket		Manufactured	No				Each	2.0000		4		13-07-23	
				<u>Location</u>			<u>Loc Qty</u>		<u>Loc Code</u>				
				ST139			2						
				99613			2						
MS24694-S54 Screw		Purchased	No				Each	552.0000		4		13-07-23	
				<u>Location</u>			<u>Loc Qty</u>		<u>Loc Code</u>				
				ST303			552						
				125535			552						

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____

Date: _____

Work Order update only

Work Order: _____	DISPOSITION	AGAINST DEPARTMENT/PROCESS							
Part No. _____	Rework <input type="checkbox"/>	Skid-tube <input type="checkbox"/>	Crosstube <input type="checkbox"/>	Water Jet <input type="checkbox"/>	Engineering <input type="checkbox"/>				
NCR No. _____	Scrap <input type="checkbox"/>	Machining <input type="checkbox"/>	Small Fab <input type="checkbox"/>	Prod. Eng. Coor. <input type="checkbox"/>	Quality <input type="checkbox"/>				
	Use-as-is <input type="checkbox"/>	Thermoforming <input type="checkbox"/>	Finishing <input type="checkbox"/>	Rec/Store/Packaging <input type="checkbox"/>	Other <input type="checkbox"/>				
	Suspected Unapproved <input type="checkbox"/>	Large Fab <input type="checkbox"/>	Composite <input type="checkbox"/>	Supplier <input type="checkbox"/>					

Root Cause	Date	Step	Qty	Description of work order update or non-conformance	Initial Chief Eng	Action Description	Sign & Date	Verification	QC Inspector
Design									
Doc/Data									
Equip/Tooling									
Handling/Pre									
Material									
Operator									
Offset/Setup									
Process									
Supplier									
Training									
Transport									
Unapproved									

FAULT CATEGORY

Landing Gear	General		
<input type="checkbox"/> Bending	<input type="checkbox"/> Bend	<input type="checkbox"/> Folio/Program	<input type="checkbox"/> Outside Dimensions
<input type="checkbox"/> Centre Not Concentric	<input type="checkbox"/> BOM/Route	<input type="checkbox"/> Grain	<input type="checkbox"/> Pressure/Forced
<input type="checkbox"/> Cracks	<input type="checkbox"/> Broken/Damage/Defect	<input type="checkbox"/> Hardware	<input type="checkbox"/> Set-up
<input type="checkbox"/> Crimp/Kink/Ripple/Wave	<input type="checkbox"/> Burrs	<input type="checkbox"/> Inspection Incomplete/Unqualified	<input type="checkbox"/> Temperature/Cure
<input type="checkbox"/> Cuffs	<input type="checkbox"/> Contamination	<input type="checkbox"/> Instructions Incomplete/Unclear	<input type="checkbox"/> Weld
<input type="checkbox"/> Crushing	<input type="checkbox"/> Countersink	<input type="checkbox"/> Misaligned/off center	<input type="checkbox"/> Wrong Stock Pulled
<input type="checkbox"/> Heat Treat	<input type="checkbox"/> Cut Too Short	<input type="checkbox"/> Mislabeled	<input type="checkbox"/> Other
<input type="checkbox"/> Inspection Strip in Tube	<input type="checkbox"/> Drawing	<input type="checkbox"/> Misread	
<input type="checkbox"/> Marks/Chatter	<input type="checkbox"/> Drill Holes	<input type="checkbox"/> Off-set	
<input type="checkbox"/> Turning Sequence	<input type="checkbox"/> Finish	<input type="checkbox"/> Out of Calibration	
<input type="checkbox"/> Wave/Twist in Tube	<input type="checkbox"/> Fit/Function	<input type="checkbox"/> Out of Sequence	

Picklist Print

June-12-13 9:15:09 AM

Page 2

Work Order ID: 102839

Parent Item: D4092-042

Start Date: 6/11/13

Required Date: 6/11/13

Parent Item Name: Maintenance Step Assembly

Start Qty: 2.00

Required Qty: 2.00

MS24694-S55

Purchased

No

Each 179.0000

16

Screw

<u>Location</u>	<u>Loc Qty</u>	<u>Loc Code</u>
ST303	179	
124296	61	
<u>125535</u>	118	

16X

4

MS24694-S56

Purchased

No

Each 102.0000

SCREW

<u>Location</u>	<u>Loc Qty</u>	<u>Loc Code</u>
ST303	102	
121340	10	
<u>125535</u>	92	

4X

4

NAS1149D0332J

Purchased

No

Each 3,620.0000

Washer

<u>Location</u>	<u>Loc Qty</u>	<u>Loc Code</u>
ST293	202	
125268	202	
ST294	3418	
122973	68	
125044	350	
<u>m125807</u>	3000	

24X

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only

Work Order: _____	DISPOSITION	AGAINST DEPARTMENT/PROCESS					
Part No. _____	Rework <input type="checkbox"/>	Skid-tube <input type="checkbox"/>	Crosstube <input type="checkbox"/>	Water Jet <input type="checkbox"/>	Engineering <input type="checkbox"/>		
NCR No. _____	Scrap <input type="checkbox"/>	Machining <input type="checkbox"/>	Small Fab <input type="checkbox"/>	Prod. Eng. Coor. <input type="checkbox"/>	Quality <input type="checkbox"/>		
	Use-as-is <input type="checkbox"/>	Thermoforming <input type="checkbox"/>	Finishing <input type="checkbox"/>	Rec/Store/Packaging <input type="checkbox"/>	Other <input type="checkbox"/>		
	Suspected Unapproved <input type="checkbox"/>	Large Fab <input type="checkbox"/>	Composite <input type="checkbox"/>	Supplier <input type="checkbox"/>			

Root Cause	Date	Step	Qty	Description of work order update or non-conformance	Initial Chief Eng	Action Description	Sign & Date	Verification	QC Inspector
Design									
Doc/Data									
Equip/Tooling									
Handling/Pre									
Material									
Operator									
Offset/Setup									
Process									
Supplier									
Training									
Transport									
Unapproved									

FAULT CATEGORY

Landing Gear	General				
	<input type="checkbox"/> Bending	<input type="checkbox"/> Bend	<input type="checkbox"/> Folio/Program	<input type="checkbox"/> Outside Dimensions	<input type="checkbox"/> Pressure/Forced
	<input type="checkbox"/> Centre Not Concentric	<input type="checkbox"/> BOM/Route	<input type="checkbox"/> Grain	<input type="checkbox"/> Over/Under tolerance	<input type="checkbox"/> Set-up
	<input type="checkbox"/> Cracks	<input type="checkbox"/> Broken/Damage/Defect	<input type="checkbox"/> Hardware	<input type="checkbox"/> Part Incorrect	<input type="checkbox"/> Temperature/Cure
	<input type="checkbox"/> Crimp/Kink/Ripple/Wave	<input type="checkbox"/> Burrs	<input type="checkbox"/> Inspection Incomplete/Unqualified	<input type="checkbox"/> Part Lost/Missing	<input type="checkbox"/> Weld
	<input type="checkbox"/> Cuffs	<input type="checkbox"/> Contamination	<input type="checkbox"/> Instructions Incomplete/Unclear	<input type="checkbox"/> Part Moved	<input type="checkbox"/> Wrong Stock Pulled
	<input type="checkbox"/> Crushing	<input type="checkbox"/> Countersink	<input type="checkbox"/> Misaligned/off center	<input type="checkbox"/> Positioned Wrong	<input type="checkbox"/> Other
	<input type="checkbox"/> Heat Treat	<input type="checkbox"/> Cut Too Short	<input type="checkbox"/> Mislabeled	<input type="checkbox"/> Power Loss/Surge	
	<input type="checkbox"/> Inspection Strip in Tube	<input type="checkbox"/> Drawing	<input type="checkbox"/> Misread		
	<input type="checkbox"/> Marks/Chatter	<input type="checkbox"/> Drill Holes	<input type="checkbox"/> Off-set		
	<input type="checkbox"/> Turning Sequence	<input type="checkbox"/> Finish	<input type="checkbox"/> Out of Calibration		
	<input type="checkbox"/> Wave/Twist in Tube	<input type="checkbox"/> Fit/Function	<input type="checkbox"/> Out of Sequence		

Picklist Print

June-12-13 9:15:09 AM

Page 3

Work Order ID: 102839

Parent Item: D4092-042

Parent Item Name: Maintenance Step Assembly

Start Date: 6/11/13

Required Date: 6/11/13

Start Qty: 2.00

Required Qty: 2.00

MS21042L3

Purchased

No

Each 2,195.0000

Nut

24

7/10/13-07-23

	<u>Location</u>	<u>Loc Qty</u>	<u>Loc Code</u>
	FP001	3	126036
	122141	3	
	GA	18	
	122452	18	
	ST314	268	
	117885	32	
	119017	55	
	119075	138	
	123265	43	
	ST506	1906	
	123900	954	
	124291	952	

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only

Work Order: _____ Part No. _____ NCR No. _____	DISPOSITION Rework <input type="checkbox"/> Scrap <input type="checkbox"/> Use-as-is <input type="checkbox"/> Suspected Unapproved <input type="checkbox"/>	AGAINST DEPARTMENT/PROCESS Skid-tube <input type="checkbox"/> Machining <input type="checkbox"/> Thermoforming <input type="checkbox"/> Large Fab <input type="checkbox"/> Crosstube <input type="checkbox"/> Small Fab <input type="checkbox"/> Finishing <input type="checkbox"/> Composite <input type="checkbox"/> Water Jet <input type="checkbox"/> Prod. Eng. Coor. <input type="checkbox"/> Rec/Store/Packaging <input type="checkbox"/> Supplier <input type="checkbox"/> Engineering <input type="checkbox"/> Quality <input type="checkbox"/> Other <input type="checkbox"/>
--	--	---

Root Cause	Date	Step	Qty	Description of work order update or non-conformance	Initial Chief Eng	Action Description	Sign & Date	Verification	QC Inspector
Design									
Doc/Data									
Equip/Tooling									
Handling/Pre									
Material									
Operator									
Offset/Setup									
Process									
Supplier									
Training									
Transport									
Unapproved									

FAULT CATEGORY

Landing Gear <input type="checkbox"/> Bending <input type="checkbox"/> Centre Not Concentric <input type="checkbox"/> Cracks <input type="checkbox"/> Crimp/Kink/Ripple/Wave <input type="checkbox"/> Cuffs <input type="checkbox"/> Crushing <input type="checkbox"/> Heat Treat <input type="checkbox"/> Inspection Strip in Tube <input type="checkbox"/> Marks/Chatter <input type="checkbox"/> Turning Sequence <input type="checkbox"/> Wave/Twist in Tube	General <input type="checkbox"/> Bend <input type="checkbox"/> BOM/Route <input type="checkbox"/> Broken/Damage/Defect <input type="checkbox"/> Burrs <input type="checkbox"/> Contamination <input type="checkbox"/> Countersink <input type="checkbox"/> Cut Too Short <input type="checkbox"/> Drawing <input type="checkbox"/> Drill Holes <input type="checkbox"/> Finish <input type="checkbox"/> Fit/Function	<input type="checkbox"/> Folio/Program <input type="checkbox"/> Grain <input type="checkbox"/> Hardware <input type="checkbox"/> Inspection Incomplete/Unqualified <input type="checkbox"/> Instructions Incomplete/Unclear <input type="checkbox"/> Misaligned/off center <input type="checkbox"/> Mislabeled <input type="checkbox"/> Misread <input type="checkbox"/> Off-set <input type="checkbox"/> Out of Calibration <input type="checkbox"/> Out of Sequence	<input type="checkbox"/> Outside Dimensions <input type="checkbox"/> Over/Under tolerance <input type="checkbox"/> Part Incorrect <input type="checkbox"/> Part Lost/Missing <input type="checkbox"/> Part Moved <input type="checkbox"/> Positioned Wrong <input type="checkbox"/> Power Loss/Surge	<input type="checkbox"/> Pressure/Forced <input type="checkbox"/> Set-up <input type="checkbox"/> Temperature/Cure <input type="checkbox"/> Weld <input type="checkbox"/> Wrong Stock Pulled <input type="checkbox"/> Other

8

7

6

5

4

3

2

1

D

D

C

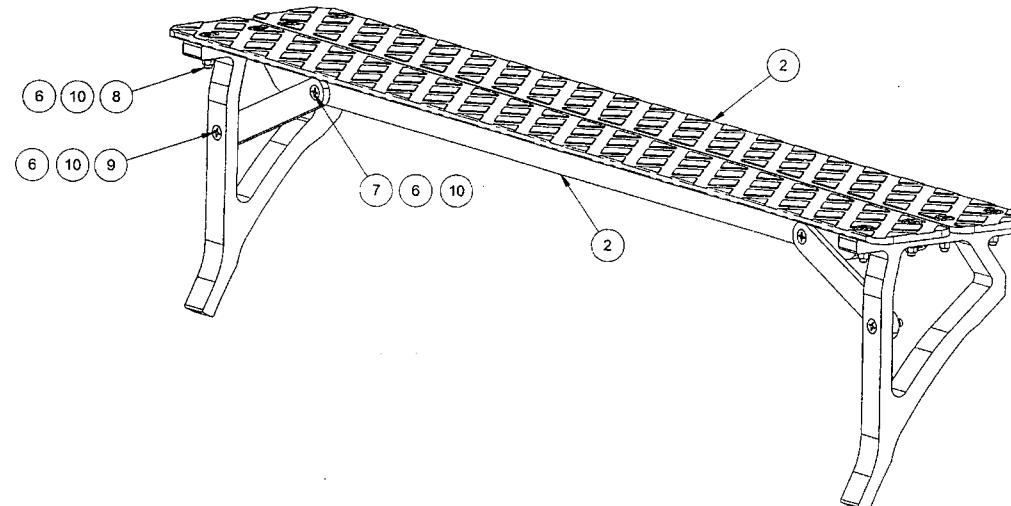
C

B

B

A

A



D4092-041 MAINTENANCE STEP ASSEMBLY

B

RELEASED
2011-09-22
MM

B	REDRAWN; LOWERED FOR AESTHETICS		RF	11.07.27
A	NEW ISSUE		RF	10.09.16
REV.	DESCRIPTION		BY	DATE
DESIGN	RF	DART AEROSPACE USA, INC.		
DRAWN	RF	KENT, WA		
CHECKED	<i>100</i>	DRAWING NO.	REV. B	
MFG. APPR.	<i>9/1</i>	D4092	SHEET 1 OF 6	
APPROVED	<i>100</i>	TITLE	SCALE	
DE APPR.	<i>9/1</i>	MAINTENANCE STEP ASSY	NTS	
DATE	11.07.27		COPYRIGHT © 2010 BY DART AEROSPACE USA, INC.	
	THIS DOCUMENT IS PRIVATE AND CONFIDENTIAL AND IS SUPPLIED ON THE EXPRESS CONDITION THAT IT IS NOT TO BE USED FOR ANY PURPOSE OR COPIED OR COMMUNICATED TO ANY OTHER PERSON WITHOUT WRITTEN PERMISSION FROM DART AEROSPACE USA, INC.			

8

7

6

5

4

3

2

1

DQA:

Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed:

Date: _____

Work Order update only

Work Order: _____	DISPOSITION	AGAINST DEPARTMENT/PROCESS							
Part No. _____	Rework <input type="checkbox"/> Scrap <input type="checkbox"/> Use-as-is <input type="checkbox"/> Suspected Unapproved <input type="checkbox"/>	Skid-tube <input type="checkbox"/> Machining <input type="checkbox"/> Thermoforming <input type="checkbox"/> Large Fab <input type="checkbox"/>	Crosstube <input type="checkbox"/> Small Fab <input type="checkbox"/> Finishing <input type="checkbox"/> Composite <input type="checkbox"/>	Water Jet <input type="checkbox"/> Prod. Eng. Coor. <input type="checkbox"/> Rec/Store/Packaging <input type="checkbox"/> Supplier <input type="checkbox"/>	Engineering <input type="checkbox"/> Quality <input type="checkbox"/> Other <input type="checkbox"/>				
NCR No. _____									

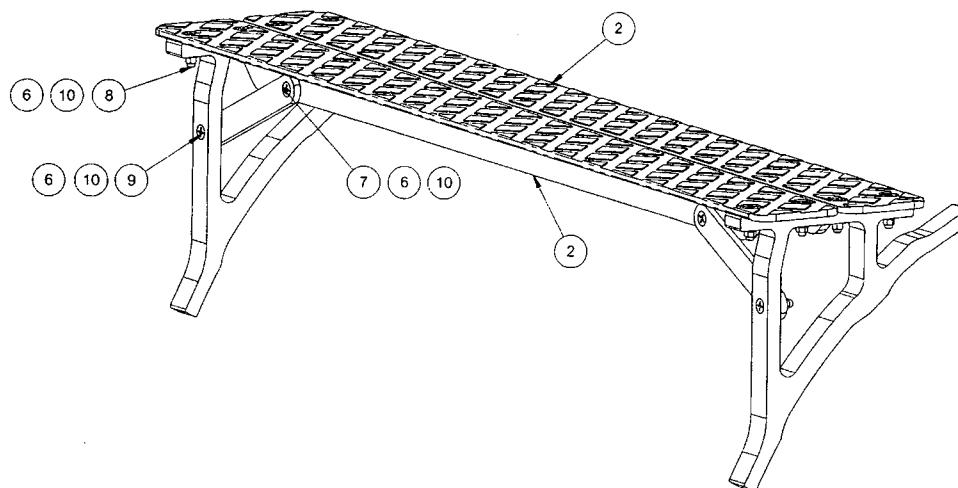
Root Cause	Date	Step	Qty	Description of work order update or non-conformance	Initial Chief Eng	Action Description	Sign & Date	Verification	QC Inspector
Design									
Doc/Data									
Equip/Tooling									
Handling/Pre									
Material									
Operator									
Offset/Setup									
Process									
Supplier									
Training									
Transport									
Unapproved									

FAULT CATEGORY

Landing Gear	General	Folio/Program	Outside Dimensions
Bending <input type="checkbox"/>	Bend <input type="checkbox"/>	Grain <input type="checkbox"/>	Over/Under tolerance <input type="checkbox"/>
Centre Not Concentric <input type="checkbox"/>	BOM/Route <input type="checkbox"/>	Hardware <input type="checkbox"/>	Part Incorrect <input type="checkbox"/>
Cracks <input type="checkbox"/>	Broken/Damage/Defect <input type="checkbox"/>	Inspection Incomplete/Unqualified <input type="checkbox"/>	Part Lost/Missing <input type="checkbox"/>
Crimp/Kink/Ripple/Wave <input type="checkbox"/>	Burrs <input type="checkbox"/>	Instructions Incomplete/Unclear <input type="checkbox"/>	Part Moved <input type="checkbox"/>
Cuffs <input type="checkbox"/>	Contamination <input type="checkbox"/>	Misaligned/off center <input type="checkbox"/>	Positioned Wrong <input type="checkbox"/>
Crushing <input type="checkbox"/>	Countersink <input type="checkbox"/>	Mislabeled <input type="checkbox"/>	Power Loss/Surge <input type="checkbox"/>
Heat Treat <input type="checkbox"/>	Cut Too Short <input type="checkbox"/>	Misread <input type="checkbox"/>	Other <input type="checkbox"/>
Inspection Strip in Tube <input type="checkbox"/>	Drawing <input type="checkbox"/>	Off-set <input type="checkbox"/>	
Marks/Chatter <input type="checkbox"/>	Drill Holes <input type="checkbox"/>	Out of Calibration <input type="checkbox"/>	
Turning Sequence <input type="checkbox"/>	Finish <input type="checkbox"/>	Out of Sequence <input type="checkbox"/>	
Wave/Twist in Tube <input type="checkbox"/>	Fit/Function <input type="checkbox"/>		

8 7 6 5 4 3 2 1

ITEM	QTY	P/N	DESCRIPTION
1	X	D4092-042	MAINTENANCE STEP ASSEMBLY
2	2	D4092-1	MAINTENANCE STEP
3	1	D4093-1	BRACKET
4	1	D4093-3	BRACKET
5	2	D4093-5	BRACKET
6	12	MS21042L3	NUT
7	2	MS24694-S54	SCREW
8	8	MS24694-S55	SCREW
9	2	MS24694-S56	SCREW
10	12	NAS1149D0332J	WASHER



D4092-042 MAINTENANCE STEP ASSEMBLY

B

RELEASED
2011-09-22
JW

DESIGN	RF	DART AEROSPACE USA, INC.	
DRAWN	RF	KENT, WA	
CHECKED	140	DRAWING NO.	REV. B
MFG. APPR.	311	D4092	SHEET 2 OF 6
APPROVED	140	TITLE	SCALE
DE APPR.	140	MAINTENANCE STEP ASS'Y	NTS
DATE	11.07.27	COPYRIGHT © 2010 BY DART AEROSPACE USA, INC. THIS DOCUMENT IS PRIVATE AND CONFIDENTIAL AND IS SUPPLIED ON THE EXPRESS CONDITION THAT IT IS NOT TO BE USED FOR ANY PURPOSE OR COPIED OR COMMUNICATED TO ANY OTHER PERSON WITHOUT WRITTEN PERMISSION FROM DART AEROSPACE USA, INC.	

8 7 6 5 4 3 2 1

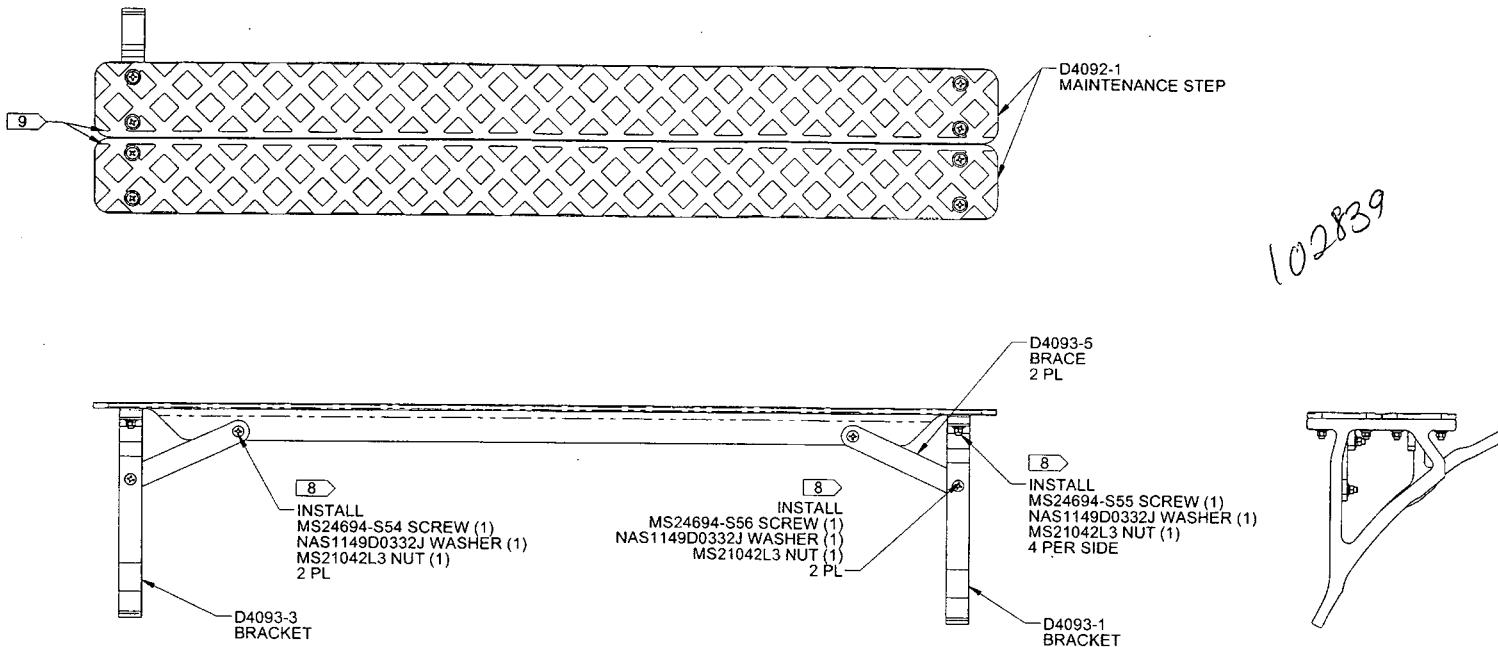
DQA: _____ Date: _____

QA Closed: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

Work Order update only



D4092-041 MAINTENANCE STEP ASSEMBLY

RELEASED
2011-09-22
1W

NOTES:

- 1) MATERIAL: N/A
- 2) FINISH: N/A
- 3) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
- 4) UNITS: INCHES UNLESS OTHERWISE NOTED
- 5) BREAK SHARP EDGES: 0.005 TO 0.010 MAX
- 6) IDENTIFICATION: PER QSI 044 6.1
- 7) WEIGHT: 5.37 lbs
- 8) TORQUE SCREWS UP TO 15-25 in-lb (1.7-2.8 N-m)
- 9) GRIP CUTOUT TOWARD CENTER

DESIGN	RF	DART AEROSPACE USA, INC.	
DRAWN	RF	KENT, WA	
CHECKED	<i>10/0</i>	DRAWING NO.	REV. B
MFG. APPR.	<i>9/1</i>	D4092	SHEET 3 OF 6
APPROVED	<i>10/0</i>	TITLE	SCALE
DE APPR.	<i>10/0</i>	MAINTENANCE STEP ASSY	NTS
DATE	11.07.27	COPYRIGHT © 2010 BY DART AEROSPACE USA, INC. THIS DOCUMENT IS PRIVATE AND CONFIDENTIAL AND IS SUPPLIED ON THE EXPRESS CONDITION THAT IT IS NOT TO BE USED FOR ANY PURPOSE OTHER THAN OR COMMUNICATED TO ANY OTHER PERSON WITHOUT WRITTEN PERMISSION FROM DART AEROSPACE USA, INC.	

DQA: _____ Date: _____

Date: .

WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

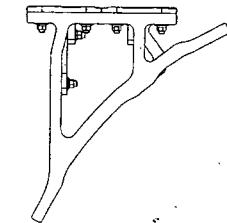
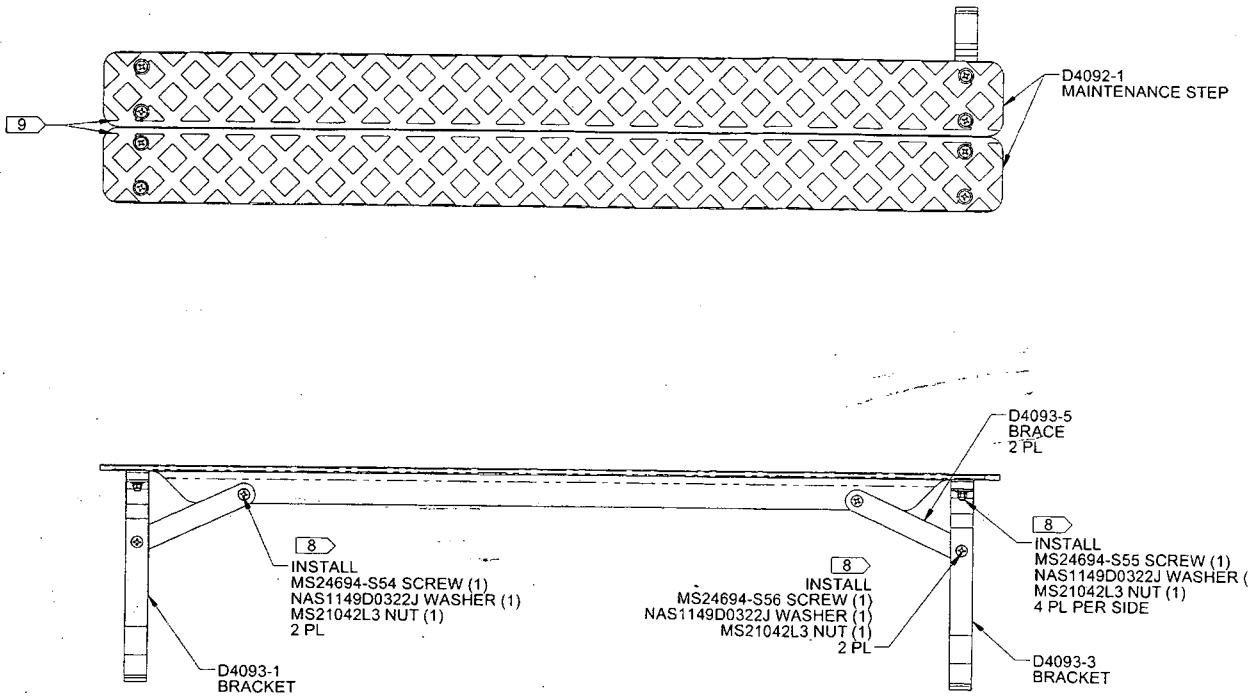
Date:

Work Order update only



Work Order:				DISPOSITION		AGAINST DEPARTMENT/PROCESS						
				Rework		Skid-tube		Crosstube		Water Jet		Engineering
				Scrap		Machining		Small Fab		Prod. Eng. Coor.		Quality
				Use-as-is		Thermoforming		Finishing		Rec/Store/Packaging		Other
				Suspected Unapproved		Large Fab		Composite		Supplier		
Root Cause		Date	Step	Qty	Description of work order update or non-conformance		Initial Chief Eng	Action Description		Sign & Date	Verification	QC Inspector
Design												
Doc/Data												
Equip/Tooling												
Handling/Pre												
Material												
Operator												
Offset/Setup												
Process												
Supplier												
Training												
Transport												
Unapproved												
FAULT CATEGORY												
Landing Gear				General								
<input type="checkbox"/> Bending <input type="checkbox"/> Centre Not Concentric <input type="checkbox"/> Cracks <input type="checkbox"/> Crimp/Kink/Ripple/Wave <input type="checkbox"/> Cuffs <input type="checkbox"/> Crushing <input type="checkbox"/> Heat Treat <input type="checkbox"/> Inspection Strip in Tube <input type="checkbox"/> Marks/Chatter <input type="checkbox"/> Turning Sequence <input type="checkbox"/> Wave/Twist in Tube				<input type="checkbox"/> Bend <input type="checkbox"/> BOM/Route <input type="checkbox"/> Broken/Damage/Defect <input type="checkbox"/> Burrs <input type="checkbox"/> Contamination <input type="checkbox"/> Countersink <input type="checkbox"/> Cut Too Short <input type="checkbox"/> Drawing <input type="checkbox"/> Drill Holes <input type="checkbox"/> Finish <input type="checkbox"/> Fit/Function								
				<input type="checkbox"/> Folio/Program <input type="checkbox"/> Grain <input type="checkbox"/> Hardware <input type="checkbox"/> Inspection Incomplete/Unqualified <input type="checkbox"/> Instructions Incomplete/Unclear <input type="checkbox"/> Misaligned/off center <input type="checkbox"/> Mislabeled <input type="checkbox"/> Misread <input type="checkbox"/> Off-set <input type="checkbox"/> Out of Calibration <input type="checkbox"/> Out of Sequence								
				<input type="checkbox"/> Outside Dimensions <input type="checkbox"/> Over/Under tolerance <input type="checkbox"/> Part Incorrect <input type="checkbox"/> Part Lost/Missing <input type="checkbox"/> Part Moved <input type="checkbox"/> Positioned Wrong <input type="checkbox"/> Power Loss/Surge								
				<input type="checkbox"/> Pressure/Forced <input type="checkbox"/> Set-up <input type="checkbox"/> Temperature/Cure <input type="checkbox"/> Weld <input type="checkbox"/> Wrong Stock Pulled								
				<input type="checkbox"/> Other								

8 7 6 5 4 3 2 1



RELEASED
R 2011-09-22
AM

D4092-042 MAINTENANCE STEP ASSEMBLY

NOTES:

- 1) MATERIAL: N/A
- 2) FINISH: N/A
- 3) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
- 4) UNITS: INCHES UNLESS OTHERWISE NOTED
- 5) BREAK SHARP EDGES: 0.005 TO 0.010 MAX
- 6) IDENTIFICATION: PER QSI 044 6.1
- 7) WEIGHT: 5.37 lbs
- 8) TORQUE SCREWS UP TO 15-25 in-lb (1.7-2.8 N-m)
- 9) GRIP CUTOUT TOWARD CENTER

8 7 6 5 4 3 2 1

DESIGN	RF	DART AEROSPACE USA, INC.	
DRAWN	RF	KENT, WA	
CHECKED	140	DRAWING NO.	
MFG. APPR.	gj	D4092	REV. B
APPROVED	140	SHEET 4 OF 6	
DE APPR.		TITLE	SCALE
DATE	11.07.27	MAINTENANCE STEP ASSY	NTS

COPYRIGHT © 2010 BY DART AEROSPACE USA, INC.
THIS DOCUMENT IS PRIVATE AND CONFIDENTIAL AND IS SUPPLIED ON THE EXPRESS CONDITION THAT IT IS
NOT TO BE USED FOR ANY OTHER PURPOSE OR COPIED, REPRODUCED OR DISCLOSED TO ANY OTHER PERSON WITHOUT
WRITTEN PERMISSION FROM DART AEROSPACE USA, INC.

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____

Date: _____

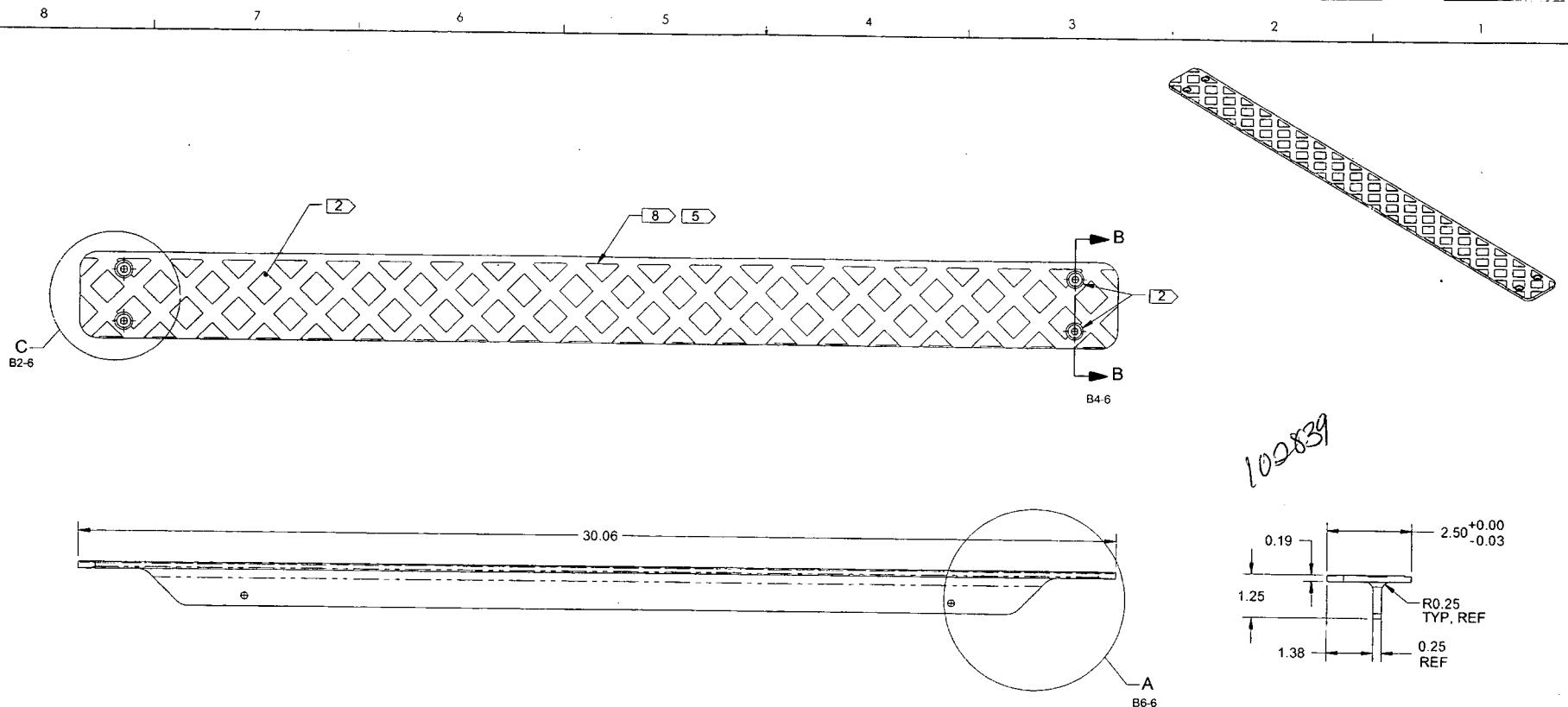
Work Order update only

Work Order: _____	DISPOSITION	AGAINST DEPARTMENT/PROCESS					
Part No. _____	Rework <input type="checkbox"/>	Skid-tube <input type="checkbox"/>	Crosstube <input type="checkbox"/>	Water Jet <input type="checkbox"/>	Engineering <input type="checkbox"/>		
NCR No. _____	Scrap <input type="checkbox"/>	Machining <input type="checkbox"/>	Small Fab <input type="checkbox"/>	Prod. Eng. Coor. <input type="checkbox"/>	Quality <input type="checkbox"/>		
	Use-as-is <input type="checkbox"/>	Thermoforming <input type="checkbox"/>	Finishing <input type="checkbox"/>	Rec/Store/Packaging <input type="checkbox"/>	Other <input type="checkbox"/>		
	Suspected Unapproved <input type="checkbox"/>	Large Fab <input type="checkbox"/>	Composite <input type="checkbox"/>	Supplier <input type="checkbox"/>			

Root Cause	Date	Step	Qty	Description of work order update or non-conformance	Initial Chief Eng	Action Description	Sign & Date	Verification	QC Inspector
Design									
Doc/Data									
Equip/Tooling									
Handling/Pre									
Material									
Operator									
Offset/Setup									
Process									
Supplier									
Training									
Transport									
Unapproved									

FAULT CATEGORY

Landing Gear	General	Folio/Program	Outside Dimensions
Bending	Bend <input type="checkbox"/>	Grain <input type="checkbox"/>	Pressure/Forced Set-up <input type="checkbox"/>
Centre Not Concentric	BOM/Route <input type="checkbox"/>	Hardware <input type="checkbox"/>	Over/Under tolerance <input type="checkbox"/>
Cracks	Broken/Damage/Defect <input type="checkbox"/>	Inspection Incomplete/Unqualified <input type="checkbox"/>	Part Incorrect <input type="checkbox"/>
Crimp/Kink/Ripple/Wave	Burrs <input type="checkbox"/>	Instructions Incomplete/Unclear <input type="checkbox"/>	Part Lost/Missing <input type="checkbox"/>
Cuffs	Contamination <input type="checkbox"/>	Misaligned/off center <input type="checkbox"/>	Part Moved <input type="checkbox"/>
Crushing	Countersink <input type="checkbox"/>	Mislabeled <input type="checkbox"/>	Positioned Wrong <input type="checkbox"/>
Heat Treat	Cut Too Short <input type="checkbox"/>	Misread <input type="checkbox"/>	Power Loss/Surge <input type="checkbox"/>
Inspection Strip in Tube	Drawing <input type="checkbox"/>	Off-set <input type="checkbox"/>	Other <input type="checkbox"/>
Marks/Chatter	Drill Holes <input type="checkbox"/>	Out of Calibration <input type="checkbox"/>	
Turning Sequence	Finish <input type="checkbox"/>	Out of Sequence <input type="checkbox"/>	
Wave/Twist in Tube	Fit/Function <input type="checkbox"/>		



D4092-1 MAINTENANCE STEP
(MAKE FROM D2761 EXTRUSION)

NOTES:

- 1) MATERIAL: MAKE FROM D2761 EXTRUSION
- 2) FINISH: CHEMICAL CONVERSION COAT PER DART QSI 005 4.1
BLACK ANTI-SKID PAINT GRIP AREA AS INDICATED PER DART QSI 005 4.4
MASK RECTANGULAR CUTOUT PRIOR TO APPLICATION OF ANTI-SKID
- 3) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
- 4) UNITS: INCHES UNLESS OTHERWISE NOTED
- 5) BREAK SHARP EDGES: 0.005 TO 0.010 MAX, NOT REQUIRED TO DEBURR GRIP AREA
- 6) IDENTIFICATION: N/A
- 7) WEIGHT: 1.97 lbs
- 8) MACHINE 0.69 x 0.69 GRIP 0.030 DEEP AT 45° PATTERN 0.38 APART

DESIGN	RF	DART AEROSPACE USA, INC.	
DRAWN	RF	KENT, WA	
CHECKED	140	DRAWING NO.	
MFG. APPR.	91	D4092	REV. B
APPROVED	142	SHEET 5 OF 6	
DE APPR.	142	TITLE	SCALE
DATE	11.07.27	MAINTENANCE STEP ASSY	NTS

COPYRIGHT © 2010 BY DART AEROSPACE USA, INC.
THIS DOCUMENT IS PRIVATE AND CONFIDENTIAL AND IS SUPPLIED ON THE EXPRESS CONDITION THAT IT IS
NOT TO BE USED FOR ANY PURPOSE OR COPIED OR COMMUNICATED TO ANY OTHER PERSON WITHOUT
WRITTEN PERMISSION FROM DART AEROSPACE USA, INC.

RELEASED
2011-09-22
JW

DQA: _____ Date: _____

Date:

WORK ORDER NON-CONFORMANCE / UPDATE

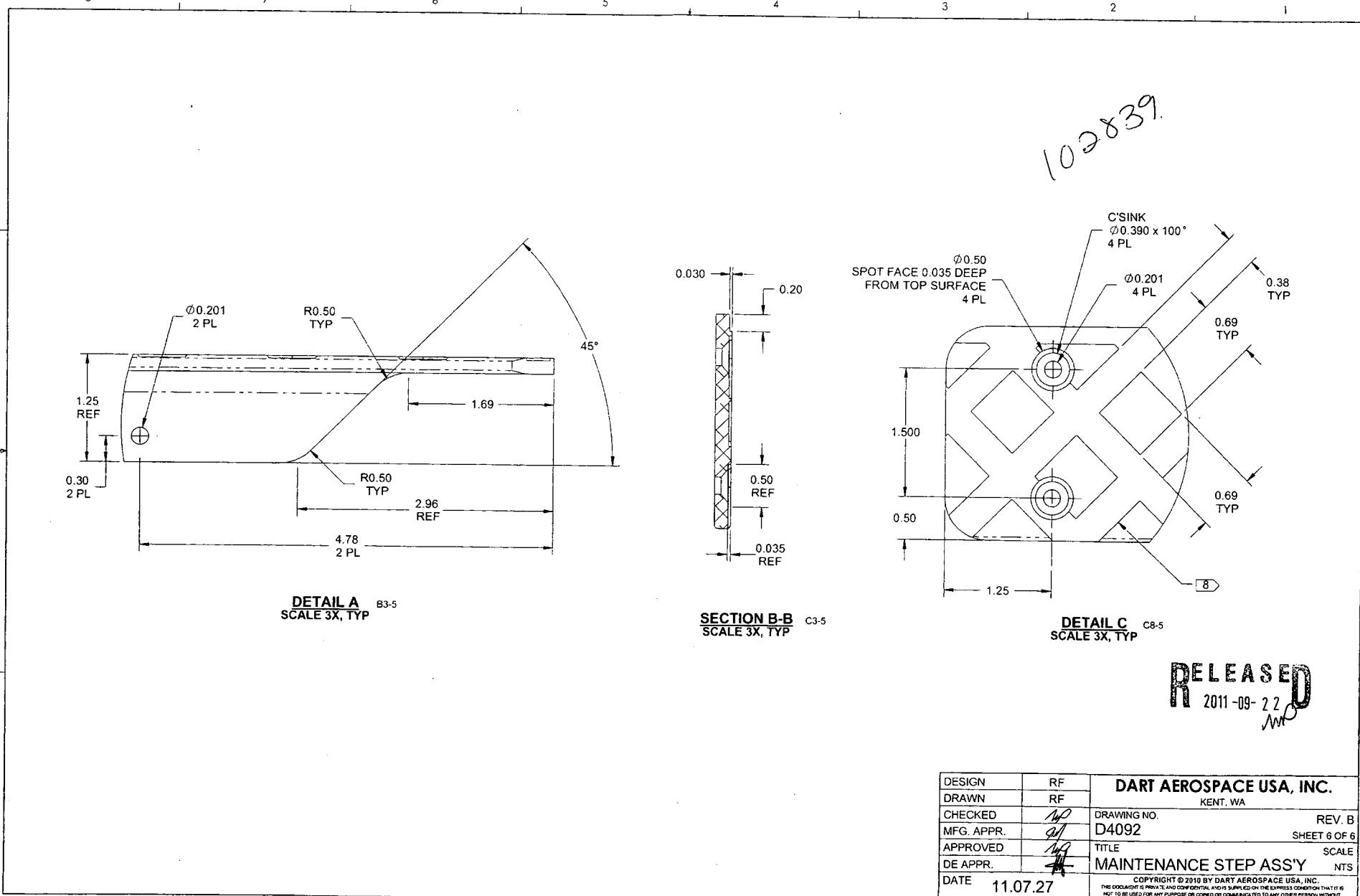
QA Closed: _____ Date: _____

Date:

Work Order update only



Work Order:				DISPOSITION		AGAINST DEPARTMENT/PROCESS					
				Rework <input type="checkbox"/>	Skid-tube <input type="checkbox"/>	Crosstube <input type="checkbox"/>	Water Jet <input type="checkbox"/>	Engineering <input type="checkbox"/>			
				Scrap <input type="checkbox"/>	Machining <input type="checkbox"/>	Small Fab <input type="checkbox"/>	Prod. Eng. Coor. <input type="checkbox"/>	Quality <input type="checkbox"/>			
				Use-as-is <input type="checkbox"/>	Thermoforming <input type="checkbox"/>	Finishing <input type="checkbox"/>	Rec/Store/Packaging <input type="checkbox"/>	Other <input type="checkbox"/>			
				Suspected Unapproved <input type="checkbox"/>	Large Fab <input type="checkbox"/>	Composite <input type="checkbox"/>	Supplier <input type="checkbox"/>				
Root Cause		Date	Step	Qty	Description of work order update or non-conformance		Initial Chief Eng	Action Description	Sign & Date	Verification	QC Inspector
Design											
Doc/Data											
Equip/Tooling											
Handling/Pre											
Material											
Operator											
Offset/Setup											
Process											
Supplier											
Training											
Transport											
Unapproved											
FAULT CATEGORY											
Landing Gear				General							
				Bend <input type="checkbox"/>	Folio/Program <input type="checkbox"/>					Outside Dimensions <input type="checkbox"/>	Pressure/Forced <input type="checkbox"/>
				BOM/Route <input type="checkbox"/>	Grain <input type="checkbox"/>					Over/Under tolerance <input type="checkbox"/>	Set-up <input type="checkbox"/>
				Broken/Damage/Defect <input type="checkbox"/>	Hardware <input type="checkbox"/>					Part Incorrect <input type="checkbox"/>	Temperature/Cure <input type="checkbox"/>
				Burrs <input type="checkbox"/>	Inspection Incomplete/Unqualified <input type="checkbox"/>					Part Lost/Missing <input type="checkbox"/>	Weld <input type="checkbox"/>
				Contamination <input type="checkbox"/>	Instructions Incomplete/Unclear <input type="checkbox"/>					Part Moved <input type="checkbox"/>	Wrong Stock Pulled <input type="checkbox"/>
				Countersink <input type="checkbox"/>	Misaligned/off center <input type="checkbox"/>					Positioned Wrong <input type="checkbox"/>	
				Cut Too Short <input type="checkbox"/>	Mislabeled <input type="checkbox"/>					Power Loss/Surge <input type="checkbox"/>	Other <input type="checkbox"/>
				Drawing <input type="checkbox"/>	Misread <input type="checkbox"/>						
				Drill Holes <input type="checkbox"/>	Off-set <input type="checkbox"/>						
				Finish <input type="checkbox"/>	Out of Calibration <input type="checkbox"/>						
				Fit/Function <input type="checkbox"/>	Out of Sequence <input type="checkbox"/>						



DESIGN	RF	DART AEROSPACE USA, INC.	
DRAWN	RF	KENT, WA	
CHECKED	<i>140</i>	DRAWING NO.	
MFG. APPR.	<i>91</i>	D4092	REV. B
APPROVED	<i>149</i>	SHEET 6 OF 6	
DE APPR.	<i>149</i>	TITLE	SCALE
DATE	11.07.27	MAINTENANCE STEP ASSY	NTS

COPYRIGHT © 2010 BY DART AEROSPACE USA, INC.
THIS DOCUMENT IS PRIVATE AND CONFIDENTIAL AND IS SUPPLIED ON THE EXPRESS CONDITION THAT IT IS
NOT TO BE USED FOR ANY PURPOSE OR COPIED OR COMMUNICATED TO ANY OTHER PERSON WITHOUT
WRITTEN PERMISSION FROM DART AEROSPACE USA, INC.

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only

Work Order: _____	DISPOSITION Rework <input type="checkbox"/> Scrap <input type="checkbox"/> Use-as-is <input type="checkbox"/> Suspected Unapproved <input type="checkbox"/>	AGAINST DEPARTMENT/PROCESS Skid-tube <input type="checkbox"/> Machining <input type="checkbox"/> Thermoforming <input type="checkbox"/> Large Fab <input type="checkbox"/> Crosstube <input type="checkbox"/> Small Fab <input type="checkbox"/> Finishing <input type="checkbox"/> Composite <input type="checkbox"/> Water Jet <input type="checkbox"/> Prod. Eng. Coor. <input type="checkbox"/> Rec/Store/Packaging <input type="checkbox"/> Supplier <input type="checkbox"/>
Part No. _____		Engineering <input type="checkbox"/> Quality <input type="checkbox"/> Other <input type="checkbox"/>
NCR No. _____		

Root Cause	Date	Step	Qty	Description of work order update or non-conformance	Initial Chief Eng	Action Description	Sign & Date	Verification	QC Inspector
Design									
Doc/Data									
Equip/Tooling									
Handling/Pre									
Material									
Operator									
Offset/Setup									
Process									
Supplier									
Training									
Transport									
Unapproved									

FAULT CATEGORY

Landing Gear	General		
<input type="checkbox"/> Bending <input type="checkbox"/> Centre Not Concentric <input type="checkbox"/> Cracks <input type="checkbox"/> Crimp/Kink/Ripple/Wave <input type="checkbox"/> Cuffs <input type="checkbox"/> Crushing <input type="checkbox"/> Heat Treat <input type="checkbox"/> Inspection Strip in Tube <input type="checkbox"/> Marks/Chatter <input type="checkbox"/> Turning Sequence <input type="checkbox"/> Wave/Twist in Tube	<input type="checkbox"/> Bend <input type="checkbox"/> BOM/Route <input type="checkbox"/> Broken/Damage/Defect <input type="checkbox"/> Burrs <input type="checkbox"/> Contamination <input type="checkbox"/> Countersink <input type="checkbox"/> Cut Too Short <input type="checkbox"/> Drawing <input type="checkbox"/> Drill Holes <input type="checkbox"/> Finish <input type="checkbox"/> Fit/Function	<input type="checkbox"/> Folio/Program <input type="checkbox"/> Grain <input type="checkbox"/> Hardware <input type="checkbox"/> Inspection Incomplete/Unqualified <input type="checkbox"/> Instructions Incomplete/Unclear <input type="checkbox"/> Misaligned/off center <input type="checkbox"/> Mislabeled <input type="checkbox"/> Misread <input type="checkbox"/> Off-set <input type="checkbox"/> Out of Calibration <input type="checkbox"/> Out of Sequence	<input type="checkbox"/> Outside Dimensions <input type="checkbox"/> Over/Under tolerance <input type="checkbox"/> Part Incorrect <input type="checkbox"/> Part Lost/Missing <input type="checkbox"/> Part Moved <input type="checkbox"/> Positioned Wrong <input type="checkbox"/> Power Loss/Surge